

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Chowdhury et al.  
Serial Number: 10/780,007  
Filed: February 17, 2004  
For: DISCOVERY OF APPLICATION  
SERVER IN AN IP NETWORK

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Confirmation No. 9570  
  
Group Art Unit: 2169  
  
Examiner: Kim, Paul

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**CERTIFICATE OF EFS-WEB TRANSMISSION**

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on: April 5, 2010

/Bradley D. Ellis/  
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**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Applicants request review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reasons stated on the attached sheets.

### REMARKS

Applicants respectfully request review of the final rejections in this case, in the Final Action mailed January 5, 2010. The cited combination of U.S. Patent No. 6,970,924 to Chu et al. ("Chu") in combination with U.S. Patent No. 7,225,272 to Kelley ("Kelley") and U.S. Patent No. 7,349,894 Barth et al. ("Barth") would change the principle of operation of Chu. *See* M.P.E.P. § 2143.01.

#### **1. Pertinent Claim Limitations**

The pending independent claims are Claims 1 and 15. In pertinent part, independent Claim 1 recites (1) performing a reverse domain name query using an IP address, (2) extracting a domain name from the response to the query, (3) generating a server name in part from the domain name, and (4) performing a domain name query using the server name. Thus, in step (4) **a domain name query is performed based on a response to a reverse domain name query**. Independent Claim 15 recites a wireless mobile device configured to perform these steps.

Domain name queries and reverse domain name queries translate between IP addresses and domain names. A domain name query accepts **a domain name as input** and provides **an IP address as output**. Application Fig. 2 (flows 250 and 260). A reverse domain name query is the reverse; it accepts **an IP address as input** and provides **a domain name as output**. Application Fig. 2 (flows 230 and 240); Chu col. 16, lines 10-13.

#### **2. Cited References**

The Office Action cites Chu as disclosing a reverse DNS query. Chu "relates to network monitoring and more specifically to network monitoring of end user experience." Chu col. 1, lines 7-9. In Chu, the Internet Protocol Time-To-Live field and Record Route option are used to record the routes taken by packets sent between two points. Chu col. 15, lines 29-65. The routes are identified by the IP addresses of the hops taken by the packets. Chu col. 15, lines 53-58.

The Office Action cites a portion of Chu disclosing a technique for determining which routers are boundary routers. Chu col. 16, lines 7-32. Boundary routers are routers which have links to multiple domains. Chu col. 16, lines 13-17. To determine which domains a router has links to, Chu teaches performing a reverse DNS query on the IP address of each link of the router. Chu col. 16, lines 10-13. By comparing the domain names returned by the reverse DNS queries, the boundary routers can be identified. Chu col. 16, lines 7-17.

Chu teaches reverse DNS queries, but does not teach DNS queries. The Office Action cites Barth and Kelley as teaching DNS queries. Both Barth and Kelley relate to network usage, rather than network monitoring. Barth teaches load balancing through a client randomly selecting among 100 server names. Barth col. 11, lines 19-56. Kelley teaches resolving a domain name into a numerical address. Kelley col. 7, line 31, to col. 8, line 14.

### **3. Cited Combination of Chu, Barth, and Kelley**

Page 6 of the Office Action describes the cited combination of Chu, Barth, and Kelley. Chu teaches a reverse domain name query, and Kelley and Barth teach domain name queries. The Office Action concludes:

The additional feature of using a domain name (returned from a reverse DNS query) in a domain name query would allow for the identification of an IP address associated with a specific application server name. That is, it would have been obvious to one of ordinary skill in the art to combine the inventions of Chu, Kelley, and Barth such that a reverse DNS query and a DNS query may be used in conjunction to improve the reverse DNS lookup system of Chu for the predictable result of enabling a forward DNS query upon the domain name such that an application server may be identified by IP address.

The Office Action's reasoning overlooks the source of the domain names in Chu. The use of the Time-To-Live field and Record Route option produces the IP addresses of the hops taken by a series of packets. Chu teaches performing reverse DNS queries using **these same IP addresses**, to determine which domains the routers have links to.

To determine an IP address by performing a DNS query on a domain name, as proposed in the Office Action, would change the principle of operation of Chu. Chu teaches discovering IP addresses by using the Time-To-Live field and Record Route option. The domain names are identified by performing reverse DNS queries on these IP addresses. In Chu, **a domain name is not determined unless an IP address is already available.**

Performing a DNS query to determine an IP address would be redundant. A DNS query requires a domain name to resolve. In Chu, a domain name comes from a reverse DNS query on an IP address. Accordingly, if a domain name is available, the corresponding IP address is also available. There would be no need to perform a DNS query on the domain name to determine an IP address, **because the domain name is the result of a reverse DNS query on that same IP address.** As such, Applicants respectfully submit that the 35 U.S.C. § 103(a) rejections of Claims 1 and 15 contain clear errors.

#### **4. Dependent Claims 2-6 and 16-20**

Claims 2-3 and 20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Chu in view of Kelley and Barth. Claims 4-6 and 16-19 stand rejected 35 U.S.C. § 103(a) as unpatentable over Chu in view of Kelley and Barth in further view of Official Notice.

Claims 2-6 depend from and further limit Claim 1. Claims 16-20 depend from and further limit Claim 15. The above remarks for Claims 1 and 15 are equally applicable to Claims 2-6 and 16-20. As such, Applicants respectfully submit that the 35 U.S.C. § 103(a) rejections of Claims 2-6 and 16-20 contain clear errors.

**5. Conclusion**

Applicants have now made an earnest attempt to place this Application in condition for allowance. For the foregoing reasons and for other reasons clearly apparent, Applicants respectfully request full allowance of Claims 1-6 and 15-20.

Applicants hereby authorize the Director to charge the required fee for the filing of a Notice of Appeal to Deposit Account No. 141315 of Nortel Networks, Limited. Applicants do not believe that any other fees are due; however, in the event that any other fees are due, the Director is hereby authorized to charge any required fees due (other than issue fees), and to credit any overpayment made, in connection with the filing of this paper to Deposit Account No. 141315 of Nortel Networks, Limited.

Respectfully submitted,

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